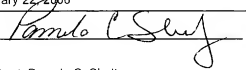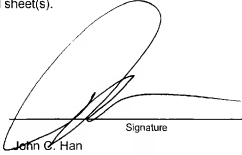Doc Code: AP.PRE.REQ

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
P12414-US1/040020-167

I hereby certify that this correspondence is being transmitted via EFS-Web (Beta)

on February 22, 2006

Signature _Pamela C. Shultz_

Typed or printed Pamela C. Shultz
name

Application Number	Filed
09/475,190	12/30/1999

First Named Inventor	
Kristian Mats Lindskog	

Art Unit	Examiner
2631	Burd, Kevin Michael

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
    Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
    See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
    (Form PTO/SB/96)

☑ attorney or agent of record.
    Registration number _41,403_

☐ attorney or agent acting under 37 CFR 1.34.

    Registration number if acting under 37 CFR 1.34 _____

Signature

John C. Han
    Typed or printed name

972-583-7686
    Telephone number

February 22, 2005
    Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Kristian Mats Lindskog §

                                     §

Serial No: 09/475,190   §

                                     §

Filed: December 30, 1999 §

                                     §

Attorney Docket No: P12414/040020-167

Customer No.: 27045

Group Art Unit: 2631

Examiner: Burd, Kevin, M

Confirmation No: 6051

For: SYNCHRONIZATION OF NODES

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
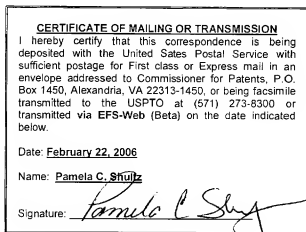
Dear Examiner:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Issues regarding the Pre-Appeal Brief Request are as follows:

PENDING REJECTIONS

Independent Claims 1, 37, and 43 are rejected under 35 U.S.C 103(a) as being unpatentable over Larson (US 4,569,042) in view of Soliman (US 6,433,739). Remaining independent Claim 20 is further rejected under 35 U.S.C 103(a) as being unpatentable over Larson in view of Soliman further in view of Greer et al (US 5,697,082).   The Applicant respectfully traverses these rejections and

submits the pending claims and the rejections for further review by the Panel. In that regard, the Applicant respectfully submits that a number of limitations as recited by the pending independent claims are not met by the references cited by the Examiner.

ARGUMENTS

The Applicant respectfully submits that not all of the claim limitations are taught or suggested by the Larson, Soliman and Greer references. More specifically, at least the emphasized elements shown below for independent Claim 1 are not anticipated or rendered obvious by the cited references:

1.   In a network including a first node and a second node, a method for regulating a frequency deviation of an oscillator in the first node comprising the steps of:

receiving a time stamp message at the second node from the first node;

transmitting a reply time stamp message from the second node to the first node, wherein the reply time stamp message includes a time of transmission of the reply time stamp message, the second node's **estimation of a time interval for said transmission of the reply time stamp message, and second node's uncertainty factor in said estimation of said time interval**; and

calculating an estimated frequency deviation of the oscillator in the first node using the second node's estimation of the time interval in the reply time stamp message.

As previously argued, in a conventional system, network elements fail to take into consideration whether a transmitting node has a very accurate oscillator, e.g., a GPS receiver, or whether the transmitting node has a relatively inaccurate oscillator, e.g., a short-term stable free-running oscillator, which has not been tuned for a long time. As a result, network nodes in a conventional system would consider all time stamp information or messages as being "equally

accurate." As one skilled in the art would understand, such an assumption in a real-time communication system would be undesirable. As a result, the present invention discloses and claims a system wherein all such time related information is not treated as being absolutely or equally "accurate". This is accomplished by a transmitting node sending not only its time stamp value when transmitting a message but also its uncertain factor as to the accuracy or certainty of its timing information to the receiving node. This is analogous to a person stating his time and further stating that his old mechanical watch may not be very accurate since it was set over two months ago. As a result, in accordance with the teachings of the present invention, a reply time stamp message includes a time of transmission of such a reply message as well as the transmitting node's estimation of a time interval for transmitting the reply message to the receiving node. In accordance with the present invention, the reply time message further includes the transmitting node's uncertainty factor in the accuracy of the estimated time interval. By providing not only the transmission time information, but also the uncertain factor in the accuracy of the time interval for such a transmission, the receiving node is able to determine the "reliability" or "quality" of the received time stamp information and use the information accordingly.

The Applicant respectfully submits that Larson, independently or in combination with Soliman or Greer, fails to anticipate or render obvious the novel elements as recited by now pending independent claims.

In that regard, the Larson reference merely discloses a system wherein a second node includes a reply time stamp in the reply time message. However, the Larson reference clearly fails to disclose or teach the recited step of including an "estimation of the time interval". Nevertheless, in rejecting independent Claims 1, 37 and 43, the Examiner incorrectly stated that even though Larson did not expressly disclose transmitting an estimation of a time interval, the transmission of an estimated time interval is well known in the art of communication. The Examiner then referenced Soliman as disclosing such an "estimation of a time interval". However, the Applicant respectfully submits that Soliman merely discloses a system wherein a "round trip delay" is measured.

Accordingly, rather than Point A estimating as to how long it would take to transmit a message from Point A to Point B, the Soliman invention instead measures the total actual delay time it would take to transmit a signal from Point A to Point B, and then receiving a reply signal back from Point B. As an illustration, Soliman discloses that such a total delay time calculation "may be done by noting the time at which a signal is transmitted from the point of origin of the round trip, knowing the amount of time required to retransmit the signal at the far end of the trip, and noting the time at which the retransmitted signal is received." Accordingly, Soliman calculates the "actual" round-trip time for transmitting a message between Point A and Point B. The present invention, on the other hand, recites an "estimation" by the transmission node as to the time delay involved in transmitting a reply message from the transmission node to the receiving node.

Notwithstanding the above, *assuming arguendo* the Examiner's rejections using Larson and Soliman are correct for the "estimation of a time interval" limitation, the Applicant submits that cited references still fail to disclose or teach the step of a transmitting node including a "uncertain factor in the estimation of the time interval" in the reply time stamp message. As a matter facts, all of the cited references are silent as to including any type of information regarding the accuracy or certainty of its time stamp information in its transmitted message. In the Examiner's Final Office Action, the Examiner once again incorrectly cited to Col. 10, lines 58-62 of the Soliman reference as allegedly disclosing a second node (transmitting node) including a "uncertain factor in the estimation of the time interval." However, the Applicant respectfully submits that Soliman instead discloses a receiver using multiple GPS satellites to correct its internal GPS clock. Accordingly, rather than just using three satellites to determine its geographic location (x, y, and z coordinates), the Soliman invention uses fourth satellite signals to correct its internal GPS clock. As more specifically described on Col. 10, lines 58-62, Soliman states that "[t]his can be understood by noting that there are four equations (i.e., one equation associated with each of the four satellites) and four unknowns which must be solved (i.e., the x, y, and z

coordinates of the receiver, and the error in the receiver clock)." Accordingly, Soliman merely discloses using an additional satellite signal to correct the receiver's internal GPS clock and has nothing to do with a transmitter transmitting "an estimation of a time interval for transmission of a replay time stamp message" as well as "an uncertainty factor in the estimation of the reported time interval" to the receiver as currently recited in the pending claims.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Panel withdraw all rejections and issue a Notice of Allowance for all pending claims.

Respectfully submitted,

By John C. Han
Registration No. 41,403

Date: February 22, 2006

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